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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,914	02/07/2006	Jan Kristenson	HW-8023	5898

26294 7590 12/31/2007

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EXAMINER	
MILLER, SAMANTHA A	
ART UNIT	**PAPER NUMBER**
3749	

MAIL DATE	DELIVERY MODE
12/31/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/567,914	KRISTENSON ET AL.	
	Examiner	Art Unit	
	Samantha A. Miller	3749	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 October 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☒ Other: English Translation DE 2608792

DETAILED ACTION

Response to Amendment

Receipt of applicant's amendment filed on 10/03/07 is acknowledged

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

A. Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kristensson (5,167,577) in view of German patent (DE 2608792 A).

Kristensson teaches:

Claim 1: Air supply device (9)for obtaining zones of clean air in premises, said air supply device comprising at least one air permeable body (9) including at least one inner and at least one outer part (13, 16) of which the inner part (13) consists of or includes porous material (col.2 ll.50-55), at least one fan device (8a) is provided to bring air (15) (col.2 ll.41-49), which is to be supplied to the premises (2), to flow through the air permeable body at low air velocity at least one device (8c) is provided to see to that the air (15) supplied to the premises (2) has a lower temperature than the air in said premises (2) (col.2ll.18-19 and col.2 ll.38-40), the air permeable body, in cross section, has the shape of parts of a circle or substantially a circle or primarily parts of a circle or

substantially a circle (Fig.1), and the combination that the inner part (13) consists of or includes porous material and the outer part (16) has passages (pores) and located close to each other (col.3 ll.5-25), for making a turbulent zone around the clean-air zone more narrow so that the turbulence around the clean-air zone hereby becomes less (col.3 ll.5-11 and col.3 ll.26-30).

Claim 5: All or almost all passages are of equal length (having the same thickness, Fig.1).

Claim 6: The passages are defined by tubes (cellular pores, col.3 ll.5-11) which are located close to each other and connected to each other.

Claim 7: The tubes are made of a plastic material (col.3 ll.5-11).

Claim 8: The tubes are made of a metallic material (col.3 ll.14-18, wire is a metal).

Claim 9: The tubes are made of a ceramic material (ceramic foam is a tough, plastic-like foam made from ceramics, a plastic-like foam is taught col.3 ll.5-11, http://en.wikipedia.org/wiki/Ceramic_foam).

Claim 10: The tubes are interconnected by fusing (the process of coating with the PVC material is fusing, col.3 ll.5-11).

Claim 11: The porous material of the inner part (13) is designed to permit filtration of air flowing through said porous material in order to obtain a low content of particles in the premises (filter material, col.3 ll.5-11).

Claim 12: The porous material of the inner part consists of foamed plastic with open cells (col.3 ll.5-11).

Claim 14: The outer part (16) consists of a heat resistant material (col.3 ll.19-24).

Claim 15: The inner and outer parts (13, 16) are connected to each other (Fig.1).

Claim 16: The body is in cross section shaped as a semicircle or substantially as a semicircle (Fig.1).

Claim 17: The air permeable body is in cross section shaped as a quarter of a circle or substantially as a quarter of a circle (Fig.1).

Claim 18: The air permeable body is shaped as a spherical segment or as a substantially spherical segment (Fig.1).

Claim 19: The device which is provided to see to that the air (15) supplied to the premises (2) has a lower temperature than the air in said premises (2), is provided to supply air at such temperature that said air descends to a low level in the premises (2) (col.2 ll.18-19 and col.2 ll.38-40).

Claim 20: Impure air is gathered in an upper zone (8) closest to the ceiling of the premises (2) (Fig.7), at least one air outlet (7) for impure air is provided at the ceiling (1) of the premises (2), and characterized in that the air permeable body (9) is located beneath the upper zone (8) such that substantially no impure air is coejected out of the upper zone (8) by the air streams (15) discharged by the air permeable body (9) (Fig.7) (col.2 ll.13-40).

Claim 21: The air permeable body (9) is located above a door (in ceiling) to the premises (2) and it is elongated and extends along at least a part of the width of the door (expanding entire room, Fig.7).

Claim 22: The device (8a) which is provided to see to that the air (15) supplied to the premises (2) has a lower temperature than the air in said premises (2), is a device for taking in cool air and/or includes a cooling device or is a cooling device (8c) for cooling air (col.2 ll.14-19).

Claim 23: The porous material retards air flow (as stated col.3 ll.14-18 air resistance through the porous material is formed) such that air flow is distributed over an entire inner surface of said inner part and a semi-laminar flow is generated at an inner surface of said outer part.

Claim 24: The outer part generates laminar air streams thereby minimizing a width of turbulent air zones and mixing of surrounding impure air (col.3 ll.14-18).

Kristensson discloses the invention above, however Kristensson possibly does not teach rectilinear uniform in thickness tubes that are at least four times greater in length than width with an outer part thicker than the inner part.

The German Patent teaches (please refer to English translation for correlating lines):

Claim 1. Tubes (3) which are substantially rectilinear, substantially uniform in thickness (Description, ll.18-19), said passages (3) further having a length which is at least four times greater than their width in order to generate rectilinear and uniformly distributed partial air streams (Fig.1).

Claim 2. The length of each passage (3) is 4-10 times greater than their width (Fig.1).

Claim 3. The length of each passage (3) is 4-10 times greater than their width (Fig.1).

Claim 4. The passages (3) have a circular or substantially circular (honeycomb shaped) cross section (Description, ll.18-19), and that they have the same or substantially the same diameter along their entire length (Fig.1).

Claim 13: The outer part (3) is thicker than the inner part (2) (Fig.1).

Therefore it would have been obvious to a person having ordinary skills in the art at the time the invention was made to have modified the air system of Kristensson in view of the teaching of the German Patent in order to reduce the exhaust velocity (German patent, ll.18-22).

Response to Arguments

Applicant's arguments filed 10/03/2007 have been fully considered but they are not persuasive.

Applicant says a full English translation of DE 2608792 was not received, however the record shows the 5 page translation that included the abstract, description, and claims was mailed out on 6/6/2007. Another one though has been provided.

Applicant contends that Kristensson does not teach a rectilinear shape and uniform distribuation. However, this was rejected as being taught by Kristensson in view of the German patent.

Applicant contends that the German patent does not require absolutely clean air streams with no impure air. However, the German patent clearly says in the Description lines 3-4 that pure air is being displaced forming a germ-free zone.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to a person having ordinary skills in the art at the time the invention was made to have modified the air system of Kristensson in view of the teaching of the German Patent in order to reduce the exhaust velocity (German patent, ll.18-22).

Applicant's arguments with respect to claims 23-24 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s)of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR '1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension

fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samantha A. Miller whose telephone number is 571-272 9967. The examiner can normally be reached on Monday - Thursday 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve McAllister can be reached on 571-272-6785. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Samantha Miller
Examiner
Art Unit 3749
12/26/2007

STEVEN B. MCALLISTER
SUPERVISORY PATENT EXAMINER

DERWENT-ACC-NO: 1977-H5777Y

DERWENT-WEEK: 197737

TITLE: Multiple nozzle for producing radial air flow displacement - has honeycomb arrangement of conical nozzles in curved surface

PATENT-ASSIGNEE: PIEDERSTORFER J[PIEDI]

PRIORITY-DATA: 1976DE-2608792 (March 3, 1976)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
DE 2608792 A	September 8, 1977	N/A	000	N/A

INT-CL (IPC): F24F013/06

ABSTRACTED-PUB-NO: DE 2608792A

BASIC-ABSTRACT:

Multiple nozzle for producing a radial displacement air flow, for germ-free rooms, comprises a cylindrical air inlet pipe section (1) leading into the circular sectional plane of a cup-shaped member. The curved

surface (3) of the
latter consists of a honeycomb -like arrangement of conical nozzles of which
the cone angle is less than 15 deg., with a fabric baffle layer (2) on the
input side and a wire mesh protective layer (4) on the output side.

The device may be installed in an operating zone of a germ-free room with its
radial displacement flow directed towards surrounding sources of interference,
or in the bracket of an operating theatre lamp of which the supporting pipe
conducts inflowing air.

TITLE-TERMS: MULTIPLE NOZZLE PRODUCE RADIAL AIR FLOW DISPLACEMENT HONEYCOMB
ARRANGE CONICAL NOZZLE CURVE SURFACE

DERWENT-CLASS: Q74

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Result Page

Multiple nozzle to the Erzeugun of radial displacement current.

The invention concerns a device for air inlet at a limited pure space work area.

By pure air displacement currents becomes in particular dust and/or with industriellen manufacturing processes and with aseptischen operations. germ-free Abeitsbedingungen in Arbeits-bzw. the operation zone production.

It is well-known, for the fulfilment of these requirements, work and/or. To ventilate operation area with pure air in such a manner that outgoing from a space side, either horizontal or vertical or also diagonal, Kurbulenzarme displacement currents are produced, which flow through the entire space cross section and derive floating particles from the rubbing realm as well as by jobs and humans scattered particles for that, for the supply air opening in relation to arranged discharge port to lead to be supposed. Further an arrangement is well-known, with which a pure air flow is operation-field-steered by a centric turbulent, diagonally arranged jet on.

This well-known Syteme requires very disciplined behavior in the pure area person employed, of air galangt frequently contaminated by breakdown bodies such as lights, technical devices, humans and thermal lift for its functioning into the pure range. The energy expenditure eentspricht the sizes of passage areas.

Der Erfindung liegt??Aufgabe zugrunde???unwägbaren Einfluss der Störquellen auszuschalten und??Energieund Investitionsaufwand zu reduzieren?

This task is solved invention-moderately by the fact that the pure air inlet between pure zone and interference source is arranged and pure air is led radially against the interference sources.

Ine kalottenförmige multiple nozzle leads radially arranged pure air across the pure zone. By the honeycombed injector bushing pre-aged pilot layer and the multiplicity of the radially arranged, under an angle than 15 extending nozzles, a kegelfrmige propagation of the supply air non-inductive in the core and a reduction of the exhaust velocity become more welccher smaller after the relationship v2 = w1. r1/r2 obtains. This flow attitude, otherwise only at suction openings, effectuation already admits, at small distance Zugfreit.

<RTI ID=3.1> It< /RTI> Iilit <RTI ID=3.2>< of /RTI> Invention obtained advantage exists in particular in the fact that restrictions which the work personnel with <RTI ID=3.3>< /RTI> /RTI Imposes upon <RTI ID=3.4> to well-known< systems> , Impairments of the Insurance of operation RTI <ID=3.5 had escaped> switched off< /RTI> and the investment and energy expenditure decrease.

Pesonders is integrated favourably an arrangement over operation tables, with that the described multiple nozzle into the console one surgery lamp and the console so <RTI ID=3.6> dimensioned< /RTI> It is that the basic Flanschrohr <RTI ID=3.7>< of /RTI> <RTI ID=3.8> pure air feed< /RTI> to at the lower, <RTI ID=3.9> front side< /RTI> <RTI ID=3.10> de< /RTI> serves the console attached multiple nozzle, since so the swivelling range of the light and flow disturbances are not Impaired are avoided by light bodies.

▲ top

In the design remark examples of the invention are represented.

<RTI ID=3.11> Jig. </RTI> 1 zeigt einen Teilschnitt <RTI ID=3.12> durch< /RTI> a multiple nozzle.

1 Zuluftstutzen 2 fabric rope layer 3 Wabenförmiger Injector bushing 4 wire mesh protective layer Fig.2 veranschlaulicht in a cross section by one area the arrangement of the air inlet device RTI <ID=3.13 at> /RTI,< which can be ventilated> Pylon of a OI light as well as the radialarranged displacement current.

L e e r His Excellency I t e

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Claims of DE2608792	Print	Copy	Contact Us	Close

Result Page

Patent claims: 1. Multiple nozzle for the production of a radial arranged dragee current in particular for so-called. pure areas, by the fact characterized that a uylindrischer Zuluftstutzen leads into the circular plane of section of a Kalotte, whose curved surface from a multiplicity of wabenförmig arranged conical nozzles their opening angle is smaller than 15 and a flow against-laterally arranged fabric rope layer and a divert-laterally arranged wire mesh protective layer exists.

2. Device according to requirement 1, by the fact characterized that it is in such a manner arranged at pure area a Arbeitszonne that its radial displacement current against those is arranged surrounding interference sources.

3. Device according to requirement 1, by the fact characterized that it is integrated into the console of a surgery lamp, whose pylon serves the supply air guidance.

▲ top

2608792

-5'

Nummer: 26 08 792
Int. Cl.²: F 24 F 13/08
Anmeldetag: 3. März 1976
Offenlegungstag: 8. September 1977

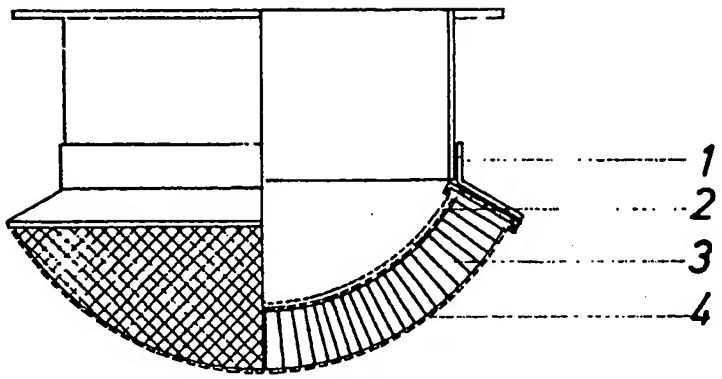

Fig. 1

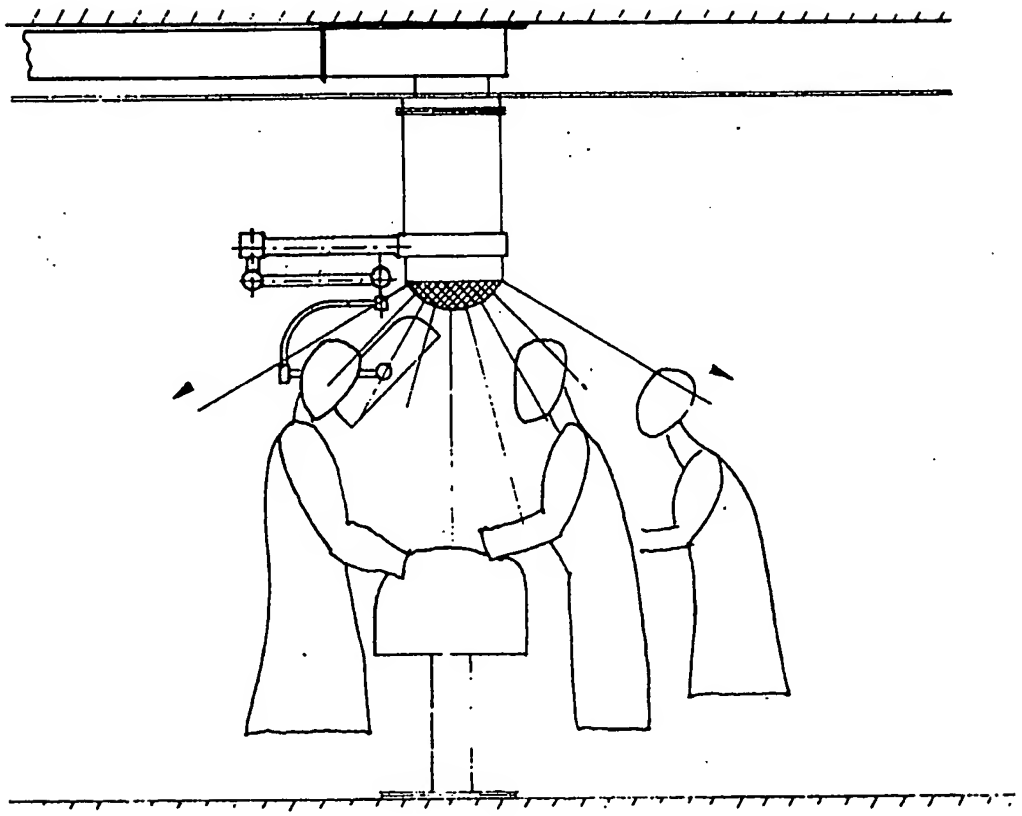

Fig. 2

709836/0280